BUILDING TECHNOLOGIES PROGRAM

CBEA Project Teams Drive Market and Technology Transformation

The Commercial Building Energy Alliance (CBEA) Project Teams are helping transform the energy landscape of the country's commercial building sector.

The CBEA Project Teams are flexible groups of industry members working together in specific areas of interest to reduce energy consumption and shrink the commercial building sector's carbon footprint. Project Teams are made up of CBEA members from the retail, commercial real estate, hospitality, higher education, and healthcare sectors. This cross-cutting approach provides members with the most wide-ranging opportunities for sharing experiences and expertise, and working together to advance energy performance. All members are encouraged to participate on at least one Project Team. Join today by writing us at CBEA@ ee.doe.gov or contacting the Team Lead for the Project Team you'd like to join!

Areas of Focus

Current CBEA Project Teams include:

- Market Transformation
- Technology Transformation
 - Lighting and Electrical
 - Space Conditioning
 - Refrigeration
 - Food Service
 - Plug and Process Loads
 - Laboratories

Project Teams focus on both marketrelated and technology challenges, developing resources, specifications, guidance, and tools to help you and other members save energy.



Project Teams provide CBEA members with unique opportunities to collaborate on mutual priorities, leveraging their expertise and influence to overcome technology- and market-related barriers to energy efficiency.

Transforming Technology

Technology team members have established a notable record of achievement, developing specifications that catalyze innovation and help members procure higher-efficiency commercial technologies. For example, as of the spring of 2012, specifications for lighting in parking lots, parking garages, refrigerated cases, and interior troffers have been applied at nearly 1,000 member sites, saving more than 60 million kWh compared with energy consumption before renovation.

Another example activity is the "RTU Challenge" specification developed by CBEA members, which challenged manufacturers to develop high-performance equipment designed to reduce energy consumption by as much as 50 percent compared with standard rooftop air-conditioning units (RTUs). Multiple manufacturers have responded to the challenge and more than a dozen CBEA member companies with major real estate portfolios are evaluating purchase of such units.

As a Project Team member, in addition to collaborating with other participants, you'll also enjoy unparalleled access to building experts in the U.S. Department of Energy's (DOE's) national laboratories.

Making Over the Market

While much can be accomplished by encouraging the development and deployment of energy-efficient technologies, many challenges facing the commercial building industry are not of a technical nature. In recognition of these challenges, the CBEAs also have initiated a Market Transformation Project Team, devoted exclusively to identifying, addressing, and overcoming non-technical market barriers. Currently, the Market Transformation Project Team's focus is on finding solutions to challenges in the commercial real estate sector. In the future, members will be looking to identify solutions for the wider commercial building market.

How Project Teams Work

• To join a CBEA Project Team, you must first become an Alliance member. Members may join or designate a representative for a Project Team by contacting that group's Team Lead—generally a national laboratory representative or other technical expert appointed by DOE (see contacts listed in the box on page 2).

As a Team member, you'll have the opportunity to talk with other members about your experiences and learn from theirs during regular Team calls, which typically occur every other month. Once a year, you'll also have the chance to provide input into new activities and resources developed by your Team.

Member input is a key component in the development of Project Team activities. Activities selected are those that members, Team Leads, and DOE agree have the broadest applicability and the highest potential for energy savings.

Join a Project Team

To join a Project Team, contact the Team Lead or write us at CBEA@ee.doe.gov.

For additional details about the Commercial Building Energy Alliances and the CBEA Project Teams, please visit us online at commercialbuildings.energy. gov/alliances.

CBEA Project Team Priorities

Technology Transformation

Food Service

Team Lead: Rich Shandross, Navigant Richard.Shandross@navigant.com

- Helping members with electric water heaters save energy with the CBEA Commercial Heat Pump Water Heating specification
- Working with EPA to get food service buildings modeled in its Portfolio Manager tool and eligible for ENERGY STAR® Certification
- Developing guidance documents, case studies, and a vendor database for implementing Energy Management Systems in restaurants.

Space Conditioning

Team Lead: Michael Deru, National Renewable Energy Laboratory (NREL) michael.deru@nrel.gov

- Verifying prototype units submitted by manufacturers in response to the Rooftop Unit (RTU) Challenge and conducting energy-impact analyses
- Developing additional advanced HVAC system specifications
- Creating a deployment plan for HVAC systems targeted by CBEA specifications.

Refrigeration

Team Lead: Bill Goetzler, Navigant Consulting wgoetzler@navigant.com

- Developing a best-practices guide related to display doors on open refrigerated cases
- Producing a commissioning guide for supermarket refrigeration systems
- Developing technology specifications for highly efficient refrigeration equipment and refrigerated display case lighting.

Lighting and Electrical

Team Lead: Linda Sandahl, Pacific Northwest National Laboratory (PNNL) linda.sandahl@pnnl.gov

- Facilitating large-scale (among members and beyond) adoption of CBEA-developed high-efficiency specifications for:
 - Parking lot lighting
 - Parking structure lighting
 - Refrigerated case lighting
 - Lighting troffers in 2'x4', 2'x2', and 1'x4' configurations
- Disseminating best practices for highefficiency lighting.

Plug and Process Loads (PPL)

Team Lead: Feitau Kung, NREL feitau.kung@nrel.gov

- Developing a new specification for a high-priority PPL
- Prioritizing needs for future specifications, guidance, or tools that will enable significant PPL energy reductions.

Laboratories

Team Lead: Paul Mathew, Lawrence Berkeley National Laboratory (LBNL) pamathew@lbl.gov

- Deploying, documenting, and disseminating four high-impact strategies:
 - Fume-hood sash management
 - Minimum air-change rate optimization
 - Reduction of simultaneous heating and cooling
 - Laboratory freezer energy management and Freezer Challenge contest
- Developing freezer and fume-hood specifications (cross-cutting activity with the Refrigeration and Food Service Project Teams).

Market Transformation

Team Lead: Diane Vrkic, Waypoint Building Group dianevrkic@waypointbuilding.com

- Developing an "efficient lease library" to help overcome splitincentive challenges; incorporating win-win efficiency clauses into leases
- Following up on next steps from Energy Efficiency Investment Roundtables
- Supporting standardized data collection in a common taxonomy to help building owners and operators better assess efficiency upgrade opportunities
- Strategically prioritizing and developing real-world implementation models and best-practice guidance documents that illustrate solutions to an array of energyefficiency barriers.